Appendix A

EDMS User Survey Form and Distribution List

Tri-Service CADD/GIS Technology Center
Electronic Document Management System (EDMS) User Survey

Name of Point of Contact: _____ **Phone:** _____

Title of POC: _____ **FAX:** _____

Internet E mail address: _____

Installation or Office Name: _____

Office or Department Title: _____

Office or Department Code: _____

Mailing Address:

_____

_____

_____

_____

_____

Organization Branch: (check one)

- ☐ **Air Force**
- ☐ **Army**
- ☐ **Army Corps of Engineers**
- ☐ **Marines**
- ☐ **Navy**
- ☐ **Coast Guard**
- ☐ **Other :** _____

Enclosure 1

Tri-Service CADD/GIS Technology Center

Electronic Document Management System (EDMS) User Survey

Category Number Listing-(Other categories may be added as needed)

1. *EDMS Software* COTS, (Bentley Teammate, Intergraph NFM, Intergraph AIM, TSA Advet Falcon DMS, FileNet, Other) GOTS, Other
2. *Client* CLIX, DOS/Windows 3.1x, Windows 95, Windows NT, Sun Sparc
3. *Server* UNIX, NT, Novell Netware, Sun Sparc
4. *Storage/Repository* Desktop, RAID, CD-ROM, Optical
5. *Database DBMS* SQL, Oracle
6. *Viewing/Markup/Module* Spicer Imagenation, Imageview, Other
7. *Workflow Product/Module* FileNet Visual Workflow, FileNet Ensemble, Other
8. *Network* Novell, NFS, Other
9. *OCR Engine* Caere OmniPage Pro, Other
10. *Type Files Stored* DGN, DWG, CGM, TIFF, PDF, Other native formats
11. *Associated CAD2 Product(s)* Intergraph, Cordant
12. *Associated Non-CAD2 Product(s)*
13. *Customization Tools* Visual Basic 4, PowerBuilder, Other
14. *Internet/Intranet* Microsoft Internet Explorer, Netscape Navigator, Saros Mezzanine, Other

(Example)

Category Number: 1

COTS=Commercial Off The Shelf Software GOTS=Government Off The Shelf Software

Status	Software Name	Type Software	Brief Functional Description
☒ In Use	*Intergraph AIM*	☒ COTS	*Document Management Suite*
☐ Initiative		☐ GOTS	
		☐ Custom	

Survey of EDMS Work Performed Or Initiatives Under Development

Tri-Service CADD/GIS Technology Center, Electronic Document Management System (EDMS) User Survey

Category Number: ________________

Status	Software Name	Type Software	Brief Functional Description
☐ In Use ☐ Initiative	__________________________ __________________________	☐ COTS ☐ GOTS ☐ Custom	____ ____

Category Number: ________________

Status	Software Name	Type Software	Brief Functional Description
☐ In Use ☐ Initiative	__________________________ __________________________	☐ COTS ☐ GOTS ☐ Custom	____ ____

Category Number: ________________

Status	Software Name	Type Software	Brief Functional Description
☐ In Use ☐ Initiative	__________________________ __________________________	☐ COTS ☐ GOTS ☐ Custom	____ ____

Category Number: ________________

Status	Software Name	Type Software	Brief Functional Description
☐ In Use ☐ Initiative	__________________________ __________________________	☐ COTS ☐ GOTS ☐ Custom	____ ____

Installation Name: _______________________________________ Page ______ of ______

Please duplicate before using

Survey of EDMS Hardware/Software Currently In Use

1) Do you have an operating EDMS system in place? ☐ Yes ☐ No ☐ Future procurement planned
(If no current operating EDMS system please skip to question 30)

2) How many users of the system? _____ How many concurrent users? _____

3) How many files are currently stored? _____ What is your average file size? _____

4) What is the primary function of your EDMS system?_____

_____

5) Describe the primary hardware components of your system:
(If available please provide a diagram describing the components of your system)

Server(s) _____

Input Device(s) _____

Storage Repository _____

Primary Workstation(s) _____

Printer(s) and/or Plotter(s) _____

Other associated hardware components _____

***Note: Information pertaining to software and operating system (client) data is detailed in the section entitled "* Survey of EDMS Work Performed Or Initiatives Under Development"**

6) Do you store and retrieve engineering (CADD) drawings on a regular basis? ☐ Yes ☐ No

7) If yes, in what format are the drawings ? ☐ Native CADD ☐ Scanned Image ☐ Other (describe) _____

_____

8) Was Legacy data transferred to your EDMS system? ☐ Yes ☐ No

9) If yes, describe the means by which it was captured _____

_____

10) Describe your data capture process for inclusion of native format files (word processing, CADD, etc.) into your EDMS system _____

_____

11) Describe your digital document indexing process _____

_____

12) Describe your digital document retrieval or query process _____

_____

13) Describe, if applicable, your digital workflow process _____

_____

14) Have security, version control and redundancy issues associated with your EDMS system been adequately addressed?

☐ **Yes** ☐ **No**

15) If no, what improvements to your EDMS system would be required to meet desired security requirements? _____

_____

16) Is an efficient archive/backup process a component of your system? ☐ **Yes** ☐ **No**

17) If no, what modifications would be required to improve this activity? _____

_____

18) Is Internet/Intranet integration a desired or current component of your system? ☐ **Yes** ☐ **No**

19) Does your site have a training program for system users? ☐ **Yes** ☐ **No**

20) What resources are required to maintain your system on a day-to-day basis? _____

_____

_____

21) How long did it take to install your system? _____

_____

22) What problems were you setting out to resolve with the implementation of EDMS?_____

_____

_____

23) What challenges did you encounter during the implementation process?_____

_____

_____

24) Was an ROI done prior to the installation of your EDMS system? ☐ **Yes** ☐ **No**

25) If yes, what were the results? (*If available attach ROI table*)_____

_____

26) Describe the tangible and intangible benefits realized by the inception of your EDMS system. _____

_____

_____

_____

27) What user acceptance issues were addressed as your system was brought on-line? _____

_____

_____

_____

_____

_____

_____

28) What are the "Lessons Learned" that you would credit to the implementation of your system?_____

_____

_____

_____

_____

_____

29) Additional Comments: _____

_____

_____

_____

_____

_____

30) Are you planning to implement an EDMS system in the future? ☐ **Yes** ☐ **No**

31) If yes, within what time frame? ☐ **0 - 12 mo** ☐ **12 - 24 mo** ☐ **24 - 36 mo** ☐ **Undetermined**

32) In what format are your documents currently maintained? ☐ **digital** ☐ **paper** ☐ **microfilm** ☐ **microfiche**

☐ **aperture card** ☐ **other (describe) _____**

33) How are your documents currently indexed? ☐ **card catalog** ☐ **digital data base** ☐ **other (describe) _____**

_____

34) Do your stored documents include plotted CADD drawings? ☐ **Yes** ☐ **No**

35) If yes, will the CADD drawings be stored on your EDMS system? ☐ **Yes** ☐ **No**

36) How would you capture the CADD drawing for electronic storage? ☐ **scan** ☐ **native format** ☐ **other (describe)**

_____

37) Describe any issues or concerns you might associate with the implementation of an EDMS system_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Installation Name: _____	**Page _____ of _____**

Thanks for taking your valuable time to complete this survey. A copy of the final report will be sent to you. In addition to assisting us with development of the Electronic Document Management Standards, the report should provide you with an overview of automation tools being used across DOD for Document Management. If you have any questions relating to the content of this survey please contact Jack Owens, Michael Baker, Jr., Inc. at 800-642-2537 ext. 4348 or 412-495-4348. Tri -Service related questions should be directed to Laurel T. Gorman, P.G. at 601-634-4484.

EDMS Survey Distribution List

PART I - DoD

Name	Office	EDMS Interest	Phone	Fax	e-mail
Military					
Worthington, Linda	HQ USACE	Archival Doc.	202-761-0332	202-761-8776	
Porzig, Roger	COE- Jacksonville Dist	Eng.Drwgs-Falcon	904-232-1189		roger.w.porzig@saj02.usace.army.mil
Bean, Bobby	NAS-Pax. River	Sp. Mgmt.	301-342-3103		bean_bobby%pax9a@nawcad.navy.mil
Krishack, John	Eglin AFB	Scanning EISs	850-882-7791x1002		
Kraszewski, Bob	Edwards AFB	Fac. Manag.	805-277-1448	805-277-6145	kraszewb%tw@mhs.elan.af.mil
Marchbanks, Betty	McCllelan AFB	Fac. Manag.	916-643-4875	916-643-0720	betty@ce_mgr.mcclellan.af.mil
FWG Members					
Grams, Calvin	Peterson AFB	Eng. Drwgs.	719-556-1422		cgrams@spacecom.af.mil
Reiner, Marta	Falcon AFB		719-567-6556		
Carr, David	Army		210-221-5441		
Hamaguchi, Wayne	Army- Hawaii		808-438-7620		hamagucw@shafter-emh3.army.mil
Smith, Ellis	Army		318-531-1428		epsd@polk-emh2.army.mil
Miner, Bryan	Army		716-879-4208		bryan.c.miner@ncb01.usace.army.mil
Bryant, Jeff	Navy- Atl. Div.		804-322-4636		bryantjl@efdlant.navfac.navy.mil
Hudson, Bill	Navy- Crane		812-854-3453		bjh289@nwscc.sea06.navy.mil
Sanchez, Vivian	Navy - SW Div.		619-532-1168		vysanchez@efdswest.navfac.navy.mil
Other Interests					
Boyd, Gary	Navy - Atl. Div.		803-820-7303		rgboyd@efdsouth.navfac.navy.mil
Wilber, Carol	Navy HQ		703-325-1274		cwilber@ng.navfac.navy.mil
JEDMICS					
Younger, Henry			205-876-8251		younger-cic-ed@redstone.army.mil
Austin, Jerry			205-842-6387		austin-jw@redstone.army.mil
Baddley, Eddy			205-876-2523		baddley-er@redstone.army.mil
Barrett, Earl			205-842-8279		barrett-ew@redstone.army.mil
Behrens, Paul			205-313-0219		behrens-pw@redstone.army.mil
Booker, Gayle			205-842-8277		gayles@redstone.army.mil
Collier, Dawna			205-876-4891		collier-cic-ed@redstone.army.mil
Falkner, Dave			205-842-2893		davidf@michp10.redstone.army.mil
Gaver, Steve			205-955-6522		gaver-cic-ed@redstone.army.mil

EDMS Survey Distribution List (Cont.)

Name	Office	EDMS Interest	Phone	Fax	e-mail
JEDMICS (cont'd)					
Gibbs, A.J.			205-842-2893		ajgibbs@michp10.redstone.army.mil
Howard, Gerald			205-842-0641		howard-cic-ed@redstone.army.mil
Infinger, Gary			205-313-0389		infinger-gc@redstone.army.mil
Leach, Jimmy			205-842-7389		leach-jl@redstone.army.mil
Mattern, Ken			205-313-0392		mattern-kj@redstone.army.mil
McCutcheon, Chris			205-955-0197		cmccutch@michp15.redstone.army.mil
Montgomery, John			205-876-9842		montgomery-jf@redstone.army.mil
Morgan, Johnnie			205-842-2893		johnniem@redstone.army.mil
Mountain, Stephen			205-842-9942		mountain-sw@redstone.army.mil
Owens, Linda			205-842-2893		owens-lg@redstone.army.mil
Slayton, Ken			205-842-7962		kslayton@redstone.army.mil
Stephens, Violet			205-842-6377		stephens-cic-ed@redstone.army.mil
Tate, Judy			205-876-8251		younger-cic-ed-sec@redstone.army.mil
Thompson, Pete			205-842-2893		petet@michp10.redstone.army.mil
Walker, Cindy			205-842-2893		cindy@michp10.redstone.army.mil
Warnick, Greg			205-842-0862		warnick-gg@redstone.army.mil
DISC Philadelphia					
Horne, Johnnie					johnnie_horne@navsup.navy.mil
Norfolk Navy Yard					
Gormley, Sam					sam_gormley@navsup.navy.mil
NAVICP Mechanicsburg					
Pusti, Bob					bob_pusti@icpmech.navy.mil
Anniston Army Depot					
Lovelady, Lynn					llovela@anniston-emh2.army.mil
Corpus Christi Army Depot, TX					
Bosquez, Ana					abosquez@CCAD-CCADGATE.army.mil
DISC - Defense Industrial Supply Center, Philadelphia, PA					

Gillespie, Robert rgillespie@disc.dla.mil

EDMS Survey Distribution List (Cont.)

Name	Office	EDMS Interest	Phone	Fax	e-mail
DSCC - Defense Supply Center, Columbus, OH					
Ballard, Lawrence					lballard@dcsc.dla.mil
DSCR - Defense Supply Center, Richmond, VA					
Logan, Lawrence					
Hill AFB, Ogden, UT					
Waggoner, Tom					waggonet@hillwpos.hill.af.mil
Iowa National Guard, Facilities and Construction Office, Johnston, IA					
Jaye, Dan			515-252-4180	515-252-4589	Jayed@IA-ARNG.ngb.army.mil
Kelly AFB, San Antonio, TX					
Calvillo, David					dcalvill@sadis05.kelly.af.mil
Letterkenny Army Depot					
Augustine, Doug					daugusti@letterkenn-emh1.army.mil
MCLB, Albany, GA					
Bryant, Jim					bryanti@ala.usmc.mil
NADEP JAX - Naval Aviation Depot, Jacksonville, FL					
Waggy, Patricia					waggy%jx%psd@mr.navair.navy.mil
NATSF Philadelphia, PA					
Abramson, Arthur					arthur_abramson@natsfgw.natsf.navy.mil
NAWC - TSD - Naval Air Warfare Center, Orlando, FL (formerly NTSC)					
Westervelt, Elizabeth					beth_westervelt@ntsc.navy.mil
Norfolk NSY, Portsmouth, VA – Forwarded to Navy Public Works Center					
Hollandsworth, Paul to Michonki, Jim-Engineering Division			757-396-8425	757-396-8233	Phollandsworth@nnsy_ns00.nnsy.navy.mil Jmichons@pweast.pwc.com

NSWC - Port Hueneme, CA
Menken, Richard — menken_richard@phdnswc.nswses.navy.mil

EDMS Survey Distribution List (Cont.)

Name	Office	EDMS Interest	Phone	Fax	e-mail
NSWC - Crane (Louisville Det)					
Sydoriak, Eugene					gene_s@smtp.nosl.sea06.navy.mil
Pearl Harbor NSY					
Miura, James					James=Miura%C240%PHNSY@ns00.phnsy.navy.mil
Portsmouth NSY, NH					
Phair, Pamela					pwp_c202@ns01.ports.navy.mil
Puget Sound NSY, WA					
Carpenter, Valoree					carpenterv@psns.navy.mil
Red River Army Depot, Texarcana, TX					
Smith, Don					dlsmith@redriverad-emh1.army.mil
Robins Air Force Base, Warner Robins, GA					
Richardson, James					jrichard@ti.robins.af.mil
Rock Island Arsenal, IL (formerly AMCCOM)					
Bender, John					jbender@ria-emh2.army.mil
SRF Yokosuka, Japan					
Gabayan, Leroy					c204@srf_emh1.yoko.mrms.navy.mil
Tinker AFB, OK					
Barker, Marilyn					mbarker@ocdis.oc.af.mil
Tobyhanna Army Depot, PA					
Laise, Steve					slaise@tobyhanna-emh3.army.mil

EDMS Survey Distribution List (Cont.)

PART II – PRIVATE SECTOR

EDMS User	Contacted to Determine Participation Interest	EDMS Interest	Phone	Fax	e-mail
Private Sector					
AETNA	David A. Kirshenbaum		860-636-5045		Direct - Web Site
Allegheny Co. PA					Direct - Web site
Amoco					webmaster@amoco.com
Amtrak	Peter Blum	Ticket Processing & Research	215-349-2693		amtrak_p@ix.netcom.com
Anheiser-Busch					BudCentral@budweiser.com
Baltimore Gas & Electric	Lawrence Condry	Gas Maps & Records Unit	410-291-4960		lawrence.w.condry@bge.com
Bank of America Investment Services		.			Direct - Web site
Betty Crocker	Mike Meinz	Direct Marketing	612-540-3652		webmaster@bettycrocker.com
Chevron USA					webmaster@www.chevron.com
CISCO Systems	Donna Soave		408-526-8383		dsoave@cisco.com
	Jan Johnston-Tyler		408-526-8355		jjohnsto@cisco.com
Cummins Engine					powermaster@cummins.com
Diebold	Denis Martini	Card Based Transactions			Direct - Web site
Dietzgen					webmaster@dietzgen.com
Draper Laboratory					communications@draper.com
Ernst & Young LLP		Tax Return Prep			webmaster@ey.com
FEDEX	Betty Clayborne		901-369-3410		Direct - Web site
General Dynamics L					cookm@gdls.com
General Dynamics B					webmaster@gdeb.com
Haagen Daz	D. Winters	Track Deliveries & Billing	612-330-5370		answers@haagen-dazs.com
Houston Lighting & Power	Mark Herzig	Claims Dept.			info1@hlp.com
Jacksonville Electric Authority	Bob Neyer				neyefr@jea.com
Lucent Technologies					webmaster@lucent.com
Marathon Oil Co.					webmaster@marathon.com

EDMS Survey Distribution List (Cont.)

EDMS User	Contacted to Determine Participation Interest	EDMS Interest	Phone	Fax	e-mail
PRIVATE SECTOR (cont'd)					
Monsanto					webguru@monsanto.com
Motorola	Bill Johnson		602-244-6606		webmaster@mot.com
Northeast Utilities	Karoll Wiater		860-665-5432		wiater@nu.com
NYNEX					Joe_Arena@SMTP.NYNEX.com
Omaha Public Power District	Sue Forbes	Procedure Tracking			(oppd_pr)sforbes@oppd.gov
Rockwell Automation	Pete Fowler	Image Design Data			baudman@rb.rockwell.com
Spalding Sports					sports@spalding.com
Stanford Health Services					webmaster@mednet.stanford.edu
Tenet Healthcare	James Wight		972-789-2587		james.wight@tenethealth.com
Toshiba					webmaster@toshiba.com
Union Pacific	Frank Lilly		402-280-6316		flilly@notes.up.com
Railroad	Paul McGee		314-768-6690		pamcgee@notes.up.com
Union Switch & Signal	Ted Davidson	Production/ Financial Analysis	412-688-2400		webmaster@switch.com
University of Washington		Biological Experiment Documentation			forman@cs.washington.edu
Utah State University	Robert Dixon	Dorm Assignment	801-797-3731		webmaster@www.usu.edu
USAir, Inc.					Direct - Web site
U.S. DOE Oak Ridge National Laboratory.	Bob Price		424-576-5103		juanfc@oro.doe.gov
US Steel					bill.wolf@tippins.com

Appendix B

EDMS User Survey Responses

Tri-Service CADD/GIS Technology Center
Electronic Document Management System (EDMS) User Survey

Name of Point of Contact: Roger Porzig **Phone:** (904) 232-1189

Title of POC: CADD Manager **FAX:** (904) 232-3424

Internet E mail address: roger.w.porzig@saj02.usace.army.mil

Installation or Office Name: Jacksonville District

Office or Department Title: Engineering

Office or Department Code: EN-F

Mailing Address:

Jacksonville District – COE

Attention: EN-F/Porzig

P.O. Box 4970

Jacksonville, Florida 32232-0019

Organization Branch: (check one)

- ☐ **Air Force**
- ☐ **Army**
- ☑ **Army Corps of Engineers**
- ☐ **Marines**
- ☐ **Navy**
- ☐ **Coast Guard**
- ☐ **Other :**

Enclosure 1

Tri-Service CADD/GIS Technology Center

Electronic Document Management System (EDMS) User Survey

Category Number Listing-(Other categories may be added as needed)

1. *EDMS Software* COTS, (Bentley Teammate, Intergraph NFM, Intergraph AIM, TSA Advet Falcon DMS, FileNet, Other) GOTS, Other
2. *Client* CLIX, DOS/Windows 3.1x, Windows 95, Windows NT, Sun Sparc
3. *Server* UNIX, NT, Novell Netware, Sun Sparc
4. *Storage/Repository* Desktop, RAID, CD-ROM, Optical
5. *Database DBMS* SQL, Oracle
6. *Viewing/Markup/Module* Spicer Imagenation, Imageview, Other
7. *Workflow Product/Module* FileNet Visual Workflow, FileNet Ensemble, Other
8. *Network* Novell, NFS, Other
9. *OCR Engine* Caere OmniPage Pro, Other
10. *Type Files Stored* DGN, DWG, CGM, TIFF, PDF, Other native formats
11. *Associated CAD2 Product(s)* Intergraph, Cordant
12. *Associated Non-CAD2 Product(s)*
13. *Customization Tools* Visual Basic 4, PowerBuilder, Other
14. *Internet/Intranet* Microsoft Internet Explorer, Netscape Navigator, Saros Mezzanine, Other

(Example)

Category Number: 1

COTS=Commercial Off The Shelf Software GOTS=Government Off The Shelf Software

Status	Software Name	Type Software	Brief Functional Description
☒ In Use	*Intergraph AIM*	☒ COTS	*Document Management Suite*
☐ Initiative		☐ GOTS	
		☐ Custom	

Survey of EDMS Work Performed Or Initiatives Under Development

Tri-Service CADD/GIS Technology Center, Electronic Document Management System (EDMS) User Survey

Category Number: 1

Status	Software Name	Type Software	Brief Functional Description
☑ In Use	Falcon DMS	☑ COTS	EDMS
☐ Initiative		☐ GOTS	
		☐ Custom	

Category Number: 2

Status	Software Name	Type Software	Brief Functional Description
☑ In Use	Win 3.X, Win 95, Win NT	☑ COTS	OS
☐ Initiative		☐ GOTS	
		☐ Custom	

Category Number: 3

Status	Software Name	Type Software	Brief Functional Description
☑ In Use	Win NT, Server 4.0	☑ COTS	OS
☐ Initiative		☐ GOTS	
		☐ Custom	

Category Number: 4

Status	Software Name	Type Software	Brief Functional Description
☑ In Use	RAID	☑ COTS	Win NT, Intergraph HW
☐ Initiative		☐ GOTS	
		☐ Custom	

Installation Name: _____ **Page** _____ **of** _____

Please duplicate before using

Survey of EDMS Work Performed Or Initiatives Under Development

Tri-Service CADD/GIS Technology Center, Electronic Document Management System (EDMS) User Survey

Category Number: 5

Status	Software Name	Type Software	Brief Functional Description
☐ In Use		☑ COTS	MS SQL Server 6.5
☑ Initiative	SQL Server 6.5	☐ GOTS	
		☐ Custom	

Category Number: 8

Status	Software Name	Type Software	Brief Functional Description
☑ In Use	Windows Network	☑ COTS	Using Shares
☐ Initiative		☐ GOTS	
		☐ Custom	

Category Number: 8

Status	Software Name	Type Software	Brief Functional Description
☑ In Use	Windows Network	☑ COTS	FTP
☐ Initiative		☐ GOTS	
		☐ Custom	

Category Number: 10

Status	Software Name	Type Software	Brief Functional Description
☑ In Use	Ustation	☑ COTS	.DGN, .TIFF, .COT, .CIT
☐ Initiative		☐ GOTS	
		☐ Custom	

Installation Name: _____ **Page** _____ **of** _____

Please duplicate before using

Survey of EDMS Work Performed Or Initiatives Under Development

Tri-Service CADD/GIS Technology Center, Electronic Document Management System (EDMS) User Survey

Category Number: 10

Status	Software Name	Type Software	Brief Functional Description
☑ In Use	MS Word, MS Excel	☑ COTS	.DOC, .XLS
☐ Initiative		☐ GOTS	
		☐ Custom	

Category Number: 10

Status	Software Name	Type Software	Brief Functional Description
☑ In Use	EditPad	☐ COTS	
☐ Initiative		☐ GOTS	
		☑ Custom	Postcard Ware (.TXT)

Category Number: 14

Status	Software Name	Type Software	Brief Functional Description
☐ In Use		☑ COTS	Web Access to Data Via EDMS
☑ Initiative		☐ GOTS	
	Netscape, Internet Explorer	☐ Custom	

Category Number: _____

Status	Software Name	Type Software	Brief Functional Description
☐ In Use		☐ COTS	
☐ Initiative		☐ GOTS	
		☐ Custom	

Installation Name: _____ **Page** _____ **of** _____

Please duplicate before using

Survey of EDMS Hardware/Software Currently In Use

1) Do you have an operating EDMS system in place? ☑ **Yes** ☐ **No** ☐ **Future procurement planned**
(If no current operating EDMS system please skip to question 30)

2) How many users of the system? 115 **How many concurrent users?** Aug., 35

3) How many files are currently stored? _____ **What is your average file size?** _____

4) What is the primary function of your EDMS system? Manage CADD Data

5) Describe the primary hardware components of your system:
(If available please provide a diagram describing the components of your system)

Server(s) Intel based NT 4.0 Server

Input Device(s) _____

Storage Repository Raid arrays (Intergraph Interaid 6)

Primary Workstation(s) Win NT and Win 95

Printer(s) and/or Plotter(s) OCE 9400 and HP755CM

Other associated hardware components _____

Note: Information pertaining to software and operating system (client) data is detailed in the section entitled " **Survey of EDMS Work Performed Or Initiatives Under Development"**

6) Do you store and retrieve engineering (CADD) drawings on a regular basis? ☑ **Yes** ☐ **No**

7) If yes, in what format are the drawings ? ☑ **Native CADD** ☑ **Scanned Image** ☐ **Other (describe)** _____

8) Was Legacy data transferred to your EDMS system? ☑ **Yes** ☐ **No**

9) If yes, describe the means by which it was captured Mass add operation of COTS

10) Describe your data capture process for inclusion of native format files (word processing, CADD, etc.) into your EDMS system Using Interface to EDMS, users add data to system when appropriate

11) Describe your digital document indexing process Via Falcon/DMS

12) Describe your digital document retrieval or query process ____See 11_____

13) Describe, if applicable, your digital workflow process ___N/A___

14) Have security, version control and redundancy issues associated with your EDMS system been adequately addressed?

☑ **Yes** ☐ **No**

15) If no, what improvements to your EDMS system would be required to meet desired security requirements? _____

16) Is an efficient archive/backup process a component of your system? ☑ **Yes** ☐ **No**

17) If no, what modifications would be required to improve this activity? _____

18) Is Internet/Intranet integration a desired or current component of your system? ☑ **Yes** ☐ **No**

19) Does your site have a training program for system users? ☑ **Yes** ☐ **No**

20) What resources are required to maintain your system on a day-to-day basis? ____Minimal Administrator_____

21) How long did it take to install your system? _____Four Hours_____

22) What problems were you setting out to resolve with the implementation of EDMS?_____Timely access by users_____

23) What challenges did you encounter during the implementation process?_____

_____There were (are) many network related issues that can (still) hamper a fully successful EDMS install_____

24) Was an ROI done prior to the installation of your EDMS system? ☑ **Yes** ☐ **No**

25) If yes, what were the results? (*If available attach ROI table*)_____Payback of investment in 12.5 months_____

26) Describe the tangible and intangible benefits realized by the inception of your EDMS system. _____

Access to drawings does not depend on “special” knowledge of the network layout. Users do not have to waste time searching for project data.

27) What user acceptance issues were addressed as your system was brought on-line? _____

_____

_____

_____

_____

_____

_____

28) What are the "Lessons Learned" that you would credit to the implementation of your system?_____

Much richer understanding of various LAN related issues

_____

_____

_____

_____

29) Additional Comments: Overall, I am very pleased with our choice of Falcon/DMS.

_____

_____

_____

_____

_____

_____

30) Are you planning to implement an EDMS system in the future? ☐ **Yes** ☐ **No**

31) If yes, within what time frame? ☐ **0 - 12 mo** ☐ **12 - 24 mo** ☐ **24 - 36 mo** ☐ **Undetermined**

32) In what format are your documents currently maintained? ☐ **digital** ☐ **paper** ☐ **microfilm** ☐ **microfiche**

☐ **aperture card** ☐ **other (describe)** _____

33) How are your documents currently indexed? ☐ **card catalog** ☐ **digital data base** ☐ **other (describe)** _____

_____

34) Do your stored documents include plotted CADD drawings? ☐ **Yes** ☐ **No**

35) If yes, will the CADD drawings be stored on your EDMS system? ☐ **Yes** ☐ **No**

36) How would you capture the CADD drawing for electronic storage? ☐ **scan** ☐ **native format** ☐ **other (describe)**

37) Describe any issues or concerns you might associate with the implementation of an EDMS system

Installation Name: Jacksonville District **Page** 4 **of** 4

Thanks for taking your valuable time to complete this survey. A copy of the final report will be sent to you. In addition to assisting us with development of the Electronic Document Management Standards, the report should provide you with an overview of automation tools being used across DOD for Document Management. If you have any questions relating to the content of this survey please contact Jack Owens, Michael Baker, Jr., Inc. at 800-642-2537 ext. 4348 or 412-495-4348. Tri -Service related questions should be directed to Laurel T. Gorman, P.G. at 601-634-4484.

Tri-Service CADD/GIS Technology Center
Electronic Document Management System (EDMS) User Survey

Name of Point of Contact: Jim Michonski **Phone:** (757) 396-8425

Title of POC: Mechanical Engineer **Fax:** (757) 396-8233

Internet E mail address: jmichons@pwceast.pwc.com

Installation or Office Name: Navy Public Works Center Engineering Division

Office or Department Title: Portsmouth Site Engineering Division

Office or Department Code: Code 214

Mailing Address:

Jim Michonski

PWC Code 214.3

Building 1500 NNSY

Portsmouth, Virginia 23709

Organization Branch: (check one)

- ☐ **Air Force**
- ☐ **Army**
- ☐ **Army Corps of Engineers**
- ☐ **Marines**
- ☑ **Navy**
- ☐ **Coast Guard**
- ☐ **Other :**

Enclosure 1

Tri-Service CADD/GIS Technology Center

Electronic Document Management System (EDMS) User Survey

Category Number Listing-(Other categories may be added as needed)

1. *EDMS Software* COTS, (Bentley Teammate, Intergraph NFM, Intergraph AIM, TSA Advet Falcon DMS, FileNet, Other) GOTS, Other
2. *Client* CLIX, DOS/Windows 3.1x, Windows 95, Windows NT, Sun Sparc
3. *Server* UNIX, NT, Novell Netware, Sun Sparc
4. *Storage/Repository* Desktop, RAID, CD-ROM, Optical
5. *Database DBMS* SQL, Oracle
6. *Viewing/Markup/Module* Spicer Imagenation, Imageview, Other
7. *Workflow Product/Module* FileNet Visual Workflow, FileNet Ensemble, Other
8. *Network* Novell, NFS, Other
9. *OCR Engine* Caere OmniPage Pro, Other
10. *Type Files Stored* DGN, DWG, CGM, TIFF, PDF, Other native formats
11. *Associated CAD2 Product(s)* Intergraph, Cordant
12. *Associated Non-CAD2 Product(s)*
13. *Customization Tools* Visual Basic 4, PowerBuilder, Other
14. *Internet/Intranet* Microsoft Internet Explorer, Netscape Navigator, Saros Mezzanine, Other

(Example)

Category Number: 1

COTS=Commercial Off The Shelf Software GOTS=Government Off The Shelf Software

Status	Software Name	Type Software	Brief Functional Description
☒ In Use	*Intergraph AIM*	☒ COTS	*Document Management Suite*
☐ Initiative		☐ GOTS	
		☐ Custom	

Survey of EDMS Work Performed Or Initiatives Under Development

Tri-Service CADD/GIS Technology Center, Electronic Document Management System (EDMS) User Survey

Category Number: 1

Status	Software Name	Type Software	Brief Functional Description
☑ In Use	File Magic Plus	☑ COTS	
☐ Initiative		☐ GOTS	
		☐ Custom	

Category Number: 2

Status	Software Name	Type Software	Brief Functional Description
☑ In Use	Dos/Windows	☑ COTS	
☐ Initiative		☐ GOTS	
		☐ Custom	

Category Number: 3

Status	Software Name	Type Software	Brief Functional Description
☑ In Use	Novell	☑ COTS	
☐ Initiative		☐ GOTS	
		☐ Custom	

Category Number: 4

Status	Software Name	Type Software	Brief Functional Description
☑ In Use	Desktop and Optical	☑ COTS	
☐ Initiative		☐ GOTS	
		☐ Custom	

Installation Name: _____ **Page** _____ **of** _____

Please duplicate before using

Survey of EDMS Hardware/Software Currently In Use

1) Do you have an operating EDMS system in place? ☐ Yes ☑ No ☑ Future procurement planned
(If no current operating EDMS system please skip to question 30)

2) How many users of the system? _____ How many concurrent users? _____

3) How many files are currently stored? _____ What is your average file size? _____

4) What is the primary function of your EDMS system?_____

_____

5) Describe the primary hardware components of your system:
(If available please provide a diagram describing the components of your system)

Server(s) _____

Input Device(s) _____

Storage Repository _____

Primary Workstation(s) _____

Printer(s) and/or Plotter(s) _____

Other associated hardware components _____

***Note: Information pertaining to software and operating system (client) data is detailed in the section entitled "* Survey of EDMS Work Performed Or Initiatives Under Development"**

6) Do you store and retrieve engineering (CADD) drawings on a regular basis? ☐ Yes ☐ No

7) If yes, in what format are the drawings ? ☐ Native CADD ☐ Scanned Image ☐ Other (describe) _____

_____

8) Was Legacy data transferred to your EDMS system? ☐ Yes ☐ No

9) If yes, describe the means by which it was captured _____

_____

10) Describe your data capture process for inclusion of native format files (word processing, CADD, etc.) into your EDMS system _____

_____

11) Describe your digital document indexing process _____

_____

12) Describe your digital document retrieval or query process _____

_____

13) Describe, if applicable, your digital workflow process _____

_____

14) Have security, version control and redundancy issues associated with your EDMS system been adequately addressed?

☐ **Yes** ☐ **No**

15) If no, what improvements to your EDMS system would be required to meet desired security requirements? _____

_____

16) Is an efficient archive/backup process a component of your system? ☐ **Yes** ☐ **No**

17) If no, what modifications would be required to improve this activity? _____

_____

18) Is Internet/Intranet integration a desired or current component of your system? ☐ **Yes** ☐ **No**

19) Does your site have a training program for system users? ☐ **Yes** ☐ **No**

20) What resources are required to maintain your system on a day-to-day basis? _____

_____

_____

21) How long did it take to install your system? _____

_____

22) What problems were you setting out to resolve with the implementation of EDMS?_____

_____

_____

23) What challenges did you encounter during the implementation process?_____

_____

_____

24) Was an ROI done prior to the installation of your EDMS system? ☐ **Yes** ☐ **No**

25) If yes, what were the results? (*If available attach ROI table*)_____

_____

26) Describe the tangible and intangible benefits realized by the inception of your EDMS system. _____

_____

_____

_____

27) What user acceptance issues were addressed as your system was brought on-line? _____

_____

_____

_____

_____

_____

_____

28) What are the "Lessons Learned" that you would credit to the implementation of your system?_____

_____

_____

_____

_____

_____

29) Additional Comments: _____

_____

_____

_____

_____

_____

30) Are you planning to implement an EDMS system in the future? ☑ **Yes** ☐ **No**

31) If yes, within what time frame? ☑ **0 - 12 mo** ☐ **12 - 24 mo** ☐ **24 - 36 mo** ☐ **Undetermined**

32) In what format are your documents currently maintained? ☑ **digital** ☑ **paper** ☐ **microfilm** ☑ **microfiche**

☑ **aperture card** ☐ **other (describe)** _____

33) How are your documents currently indexed? ☑ **card catalog** ☐ **digital data base** ☐ **other (describe)** _____

_____

34) Do your stored documents include plotted CADD drawings? ☑ **Yes** ☐ **No**

35) If yes, will the CADD drawings be stored on your EDMS system? ☑ **Yes** ☐ **No**

36) How would you capture the CADD drawing for electronic storage? ☑ **scan** ☑ **native format** ☐ **other (describe)**

Both _____

37) Describe any issues or concerns you might associate with the implementation of an EDMS system

1. Cost to implement

2. Maintenance of system

3. Proper storage format for compatibility with established and proposed DoD Standards.

Installation Name: Norfolk Naval Shipyard/PWC Norfolk **Page** 4 **of** 4

Thanks for taking your valuable time to complete this survey. A copy of the final report will be sent to you. In addition to assisting us with development of the Electronic Document Management Standards, the report should provide you with an overview of automation tools being used across DOD for Document Management. If you have any questions relating to the content of this survey please contact Jack Owens, Michael Baker, Jr., Inc. at 800-642-2537 ext. 4348 or 412-495-4348. Tri -Service related questions should be directed to Laurel T. Gorman, P.G. at 601-634-4484.

Tri-Service CADD/GIS Technology Center
Electronic Document Management System (EDMS) User Survey

Name of Point of Contact: Mr. Reed MacMillan **Phone:** (410)278-0534

Title of POC: Environmental Planning Chief **FAX:** (410)278-6779

Internet E mail address: dmacmil@dshe.apg.army.mil

Installation or Office Name: Aberdeen Proving Ground

Office or Department Title: Directorate of Safety, Health and Environment

Office or Department Code: Environmental Planning

Mailing Address:

Attn: STEAP-SH-ER

Mitchell House, #5650

Aberdeen Proving Ground, MD 21203-1715

Organization Branch: (check one)

- ☐ **Air Force**
- ☐ **Army**
- ☐ **Army Corps of Engineers**
- ☐ **Marines**
- ☐ **Navy**
- ☐ **Coast Guard**
- ☐ **Other :**

Enclosure 1

Survey of EDMS Hardware/Software Currently In Use

1) Do you have an operating EDMS system in place? ☒ **Yes** ☐ **No** ☐ **Future procurement planned**
(If no current operating EDMS system please skip to question 30)

2) How many users of the system? ____*25*____ **How many concurrent users?** ____*5*____

3) How many files are currently stored? _____*5000*_____ **What is your average file size?** _____*500kb*_____

4) What is the primary function of your EDMS system?
To organize, store and retrieve NEPA Documents (RECs, RONA, CR106, etc)

5) Describe the primary hardware components of your system:
(If available please provide a diagram describing the components of your system)

Server(s) *Intergraph IP625*
Input Device(s) *HP ScanJet 5*

Storage Repository *12 GB Hard Disk utilizing RAID technology*

Primary Workstation(s) *Pentium 166, 32 Mb RAM*

Printer(s) and/or Plotter(s) *HP650c*

Other associated hardware components _____

Note: Information pertaining to software and operating system (client) data is detailed in the section entitled " **Survey of EDMS Work Performed Or Initiatives Under Development"**

6) Do you store and retrieve engineering (CADD) drawings on a regular basis? ☐ **Yes** ☒ **No**

7) If yes, in what format are the drawings ? ☐ **Native CADD** ☐ **Scanned Image** ☐ **Other (describe)** _____

_____

8) Was Legacy data transferred to your EDMS system? ☒ **Yes** ☐ **No**

9) If yes, describe the means by which it was captured _____

_____

10) Describe your data capture process for inclusion of native format files (word processing, CADD, etc.) into your EDMS system

See Attached Diagram

11) Describe your digital document indexing process _____
See Attached Diagram

_____

12) Describe your digital document retrieval or query process _____

User are provided a series of predefined filters (i.e. show me all the RECS), but also have access to a query form that provides a means for Ad-Hoc searches

13) Describe, if applicable, your digital workflow process __ *See Attached Diagram*

---

14) Have security, version control and redundancy issues associated with your EDMS system been adequately addressed?

☐ **Yes** ☐ **No**

15) If no, what improvements to your EDMS system would be required to meet desired security requirements? _____

Currently the data exists in Microsoft Access, but in order to provide tighter security it is being ported to ORACLE. Additionally, a web based front end is being developed for those users that have a View-Only role. However the implementation of this tool dependent on the acquisition and installation of an intranet firewall.

16) Is an efficient archive/backup process a component of your system? ☐ **Yes** ☐ **No**

17) If no, what modifications would be required to improve this activity? _____

---

18) Is Internet/Intranet integration a desired or current component of your system? ☐ **Yes** ☐ **No**

19) Does your site have a training program for system users? ☐ **Yes** ☐ **No**

20) What resources are required to maintain your system on a day-to-day basis? _____

Currently the data entry portion of the day-to-day operation falls primarily on two individuals. The first is an internal employee that spends 25% of her time working with the system. The second individual is a contractor that works 3 days per week and focuses on scanning/linking historical documents.

21) How long did it take to install your system?

The entire ERPMS has been in development/implementation for the past 5 years. During the life of the application there have been long breaks in the development due to budget restrictions, personnel turnover, and a change in contractors.

22) What problems were you setting out to resolve with the implementation of EDMS?_____

There were several goals, they were; A) Allow for a faster turn-around for NEPA Documents. B) Provide access to the NEPA Document through the GIS, C) Share information with other Garrison Organizations and Tenants, D) Public Access to ALL NEPA Documents.

23) What challenges did you encounter during the implementation process?

See question 21

24) Was an ROI done prior to the installation of your EDMS system? ☐ **Yes** ☐ **No**

25) If yes, what were the results? (*If available attach ROI table*)_____

---

26) Describe the tangible and intangible benefits realized by the inception of your EDMS system. _____

See Question 22

27) What user acceptance issues were addressed as your system was brought on-line? _____

The standard for PCs (hardware/software) as defined by the Directorate of Information Management was used when determining the systems minimum requirements. However, many of the PC being used by the tenant organization did not comply with these standards and therefore could not utilize the system.

28) What are the "Lessons Learned" that you would credit to the implementation of your system?

A.) It is very important to coordinate with ALL users (internal and external) when determining the requirements of the system, both hardware and software, so prior to the expenditure of funds.

B.) The approach of customizing COTS packages such as Microsoft Word and Access to fulfill this specific needs of the organization has proved to be very cost effective. The alternatives of developing the entire system from scratch, or purchasing a complete EDMS and then customizing it to meet our specific needs would have been far more expensive.

29) Additional Comments:

It is important to have a contractor that you can trust and feel comfortable with prior to undertaking a project of this magnitude. Additionally, you must be aware of the "Empire Builder" within the organizations. They can put up barriers that can be difficult and in some cases impossible to eliminate.

30) Are you planning to implement an EDMS system in the future? ☐ **Yes** ☐ **No**

31) If yes, within what time frame? ☐ **0 - 12 mo** ☐ **12 - 24 mo** ☐ **24 - 36 mo** ☐ **Undetermined**

32) In what format are your documents currently maintained? ☐ **digital** ☐ **paper** ☐ **microfilm** ☐ **microfiche**

☐ **aperture card** ☐ **other (describe)** _____

33) How are your documents currently indexed? ☐ **card catalog** ☐ **digital data base** ☐ **other (describe)** _____

_____

34) Do your stored documents include plotted CADD drawings? ☐ **Yes** ☐ **No**

35) If yes, will the CADD drawings be stored on your EDMS system? ☐ **Yes** ☐ **No**

36) How would you capture the CADD drawing for electronic storage? ? ☐ **scan** ☐ **native format** ☐ **other (describe)**

_____

37) Describe any issues or concerns you might associate with the implementation of an EDMS system_____

_____

_____

_____

_____

_____

_____

_____

Installation Name: _____	**Page _____ of _____**

Thanks for taking your valuable time to complete this survey. A copy of the final report will be sent to you. In addition to assisting us with development of the Electronic Document Management Standards, the report should provide you with an overview of automation tools being used across DOD for Document Management. If you have any questions relating to the content of this survey please contact Jack Owens, Michael Baker, Jr., Inc. at 800-642-2537 ext. 4348 or 412-495-4348. Tri -Service related questions should be directed to Laurel T. Gorman, P.G. at 601-634-4484.

Tri-Service CADD/GIS Technology Center, Electronic Document Management System (EDMS) User Survey

Tri-Service CADD/GIS Technology Center
Electronic Document Management System (EDMS) User Survey

Name of Point of Contact: Dan Jave **Phone:** (515) 252-4180

Title of POC: Project Manager **Fax:** (515) 252-4589

Internet E mail address: javed@ia-arng.ngb.army.mil

Installation or Office Name: Facilities and Construction Office

Office or Department Title:

Office or Department Code:

Mailing Address:

Iowa National Guard

7700 NW Beaver Road

Johnston, Iowa 50131

Note: At Camp Dodge – http:/www.guard.state.ia.us

Organization Branch: (check one)

- ☐ **Air Force**
- ☐ **Army**
- ☐ **Army Corps of Engineers**
- ☐ **Marines**
- ☐ **Navy**
- ☐ **Coast Guard**
- ☑ **Other :** ARNG

Category Number Listing-(Other categories may be added as needed)

1. *EDMS Software* COTS, (Bentley Teammate, Intergraph NFM, Intergraph AIM, TSA Advet Falcon DMS, FileNet, Other) GOTS, Other
2. *Client* CLIX, DOS/Windows 3.1x, Windows 95, Windows NT, Sun Sparc
3. *Server* UNIX, NT, Novell Netware, Sun Sparc
4. *Storage/Repository* Desktop, RAID, CD-ROM, Optical
5. *Database DBMS* SQL, Oracle
6. *Viewing/Markup/Module* Spicer Imagenation, Imageview, Other
7. *Workflow Product/Module* FileNet Visual Workflow, FileNet Ensemble, Other
8. *Network* Novell, NFS, Other
9. *OCR Engine* Caere OmniPage Pro, Other
10. *Type Files Stored* DGN, DWG, CGM, TIFF, PDF, Other native formats
11. *Associated CAD2 Product(s)* Intergraph, Cordant
12. *Associated Non-CAD2 Product(s)*
13. *Customization Tools* Visual Basic 4, PowerBuilder, Other
14. *Internet/Intranet* Microsoft Internet Explorer, Netscape Navigator, Saros Mezzanine, Other

(Example)

Category Number: 1

COTS=Commercial Off The Shelf Software GOTS=Government Off The Shelf Software

Status	Software Name	Type Software	Brief Functional Description
☒ In Use	*Intergraph AIM*	☒ COTS	*Document Management Suite*
☐ Initiative		☐ GOTS	
		☐ Custom	

Survey of EDMS Work Performed Or Initiatives Under Development

Tri-Service CADD/GIS Technology Center, Electronic Document Management System (EDMS) User Survey

Category Number: 2

Status	Software Name	Type Software	Brief Functional Description
☑ In Use	Windows NT 4.0	☑ COTS	
☐ Initiative		☐ GOTS	
		☐ Custom	

Category Number: 3

Status	Software Name	Type Software	Brief Functional Description
☑ In Use	NT	☑ COTS	
☐ Initiative		☐ GOTS	
		☐ Custom	

Category Number: 4

Status	Software Name	Type Software	Brief Functional Description
☑ In Use	RAID	☑ COTS	
☐ Initiative		☐ GOTS	
		☐ Custom	

Category Number: 5

Status	Software Name	Type Software	Brief Functional Description
☑ In Use	Access	☑ COTS	
☐ Initiative		☐ GOTS	
		☐ Custom	

Installation Name: _____ **Page** 1 **of** 3

Please duplicate before using

Survey of EDMS Work Performed Or Initiatives Under Development

Tri-Service CADD/GIS Technology Center, Electronic Document Management System (EDMS) User Survey

Category Number: 6

Status	Software Name	Type Software	Brief Functional Description
☑ In Use	Ice View	☑ COTS	.CAL Viewer
☐ Initiative		☐ GOTS	
		☐ Custom	

Category Number: 6

Status	Software Name	Type Software	Brief Functional Description
☑ In Use	Drag and View	☑ COTS	AutoCAD Viewer (limted success)
☐ Initiative		☐ GOTS	
		☐ Custom	

Category Number: 6

Status	Software Name	Type Software	Brief Functional Description
☑ In Use	ARCView	☑ COTS	AutoCAD (limited information) Viewer, GIS
☐ Initiative		☐ GOTS	
		☐ Custom	

Category Number: 8

Status	Software Name	Type Software	Brief Functional Description
☑ In Use	RCAS	☐ COTS	Reserve Component Automation System, NT 4.0 Network
☐ Initiative		☑ GOTS	
		☐ Custom	

Installation Name: _____ **Page** 2 **of** 3

Please duplicate before using

Survey of EDMS Work Performed Or Initiatives Under Development

Tri-Service CADD/GIS Technology Center, Electronic Document Management System (EDMS) User Survey

Category Number: 10

Status	Software Name	Type Software	Brief Functional Description
☑ In Use	.DWG, CAL.	☑ COTS	CAD Documents
☐ Initiative		☐ GOTS	
		☐ Custom	

Category Number: 14

Status	Software Name	Type Software	Brief Functional Description
☑ In Use	MSIE	☑ COTS	RCAS Supported
☐ Initiative		☐ GOTS	
		☐ Custom	

Category Number: 14

Status	Software Name	Type Software	Brief Functional Description
☐ In Use		☑ COTS	.ASP for Intranet, .HTM for Intranet
☑ Initiative		☐ GOTS	
	Inter Dev, Front Page	☐ Custom	

Category Number: 14

Status	Software Name	Type Software	Brief Functional Description
☐ In Use		☑ COTS	Web GIS Viewer
☐ Initiative		☐ GOTS	
	ESRI IMS Extension for ARCView	☐ Custom	

Installation Name: _____ **Page** 3 **of** 3

Please duplicate before using

Survey of EDMS Hardware/Software Currently In Use

1) Do you have an operating EDMS system in place? ☐ Yes ☑ No ☐ Future procurement planned
(If no current operating EDMS system please skip to question 30)

2) How many users of the system? _____ How many concurrent users? _____

3) How many files are currently stored? _____ What is your average file size? _____

4) What is the primary function of your EDMS system?_____

_____

5) Describe the primary hardware components of your system:
(If available please provide a diagram describing the components of your system)

Server(s) _____

Input Device(s) _____

Storage Repository _____

Primary Workstation(s) _____

Printer(s) and/or Plotter(s) _____

Other associated hardware components _____

Note: Information pertaining to software and operating system (client) data is detailed in the section entitled " Survey of EDMS Work Performed Or Initiatives Under Development"

6) Do you store and retrieve engineering (CADD) drawings on a regular basis? ☐ Yes ☐ No

7) If yes, in what format are the drawings ? ☐ Native CADD ☐ Scanned Image ☐ Other (describe) _____

_____

8) Was Legacy data transferred to your EDMS system? ☐ Yes ☐ No

9) If yes, describe the means by which it was captured _____

_____

10) Describe your data capture process for inclusion of native format files (word processing, CADD, etc.) into your EDMS system _____

_____

11) Describe your digital document indexing process _____

_____

12) Describe your digital document retrieval or query process _____

_____

13) Describe, if applicable, your digital workflow process _____

_____

14) Have security, version control and redundancy issues associated with your EDMS system been adequately addressed?

☐ **Yes** ☐ **No**

15) If no, what improvements to your EDMS system would be required to meet desired security requirements? _____

_____

16) Is an efficient archive/backup process a component of your system? ☐ **Yes** ☐ **No**

17) If no, what modifications would be required to improve this activity? _____

_____

18) Is Internet/Intranet integration a desired or current component of your system? ☐ **Yes** ☐ **No**

19) Does your site have a training program for system users? ☐ **Yes** ☐ **No**

20) What resources are required to maintain your system on a day-to-day basis? _____

_____

_____

21) How long did it take to install your system? _____

_____

22) What problems were you setting out to resolve with the implementation of EDMS?_____

_____

_____

23) What challenges did you encounter during the implementation process?_____

_____

_____

24) Was an ROI done prior to the installation of your EDMS system? ☐ **Yes** ☐ **No**

25) If yes, what were the results? (*If available attach ROI table*)_____

_____

26) Describe the tangible and intangible benefits realized by the inception of your EDMS system. _____

_____

_____

_____

27) What user acceptance issues were addressed as your system was brought on-line? _____

28) What are the "Lessons Learned" that you would credit to the implementation of your system?_____

29) Additional Comments: _____

30) Are you planning to implement an EDMS system in the future? ☑ **Yes** ☐ **No**

31) If yes, within what time frame? ☐ **0 - 12 mo** ☐ **12 - 24 mo** ☐ **24 - 36 mo** ☑ **Undetermined**

32) In what format are your documents currently maintained? ☑ **digital** ☑ **paper** ☐ **microfilm** ☐ **microfiche**

☐ **aperture card** ☐ **other (describe)** _____

33) How are your documents currently indexed? ☐ **card catalog** ☐ **digital data base** ☐ **other (describe)** _____

Directory Tree/Files

34) Do your stored documents include plotted CADD drawings? ☑ **Yes** ☐ **No** Some

35) If yes, will the CADD drawings be stored on your EDMS system? ☑ **Yes** ☐ **No**

36) How would you capture the CADD drawing for electronic storage? ☑ **scan** ☑ **native format** ☐ **other (describe)**

Scan – some .CAL

37) Describe any issues or concerns you might associate with the implementation of an EDMS system

We are using a manual system now because of the low volume of users. As we make documents available to more people we may need a management application. We are looking into placing documents on the Intranet as well

Installation Name: Camp Dodge **Page** 4 **of** 4

Thanks for taking your valuable time to complete this survey. A copy of the final report will be sent to you. In addition to assisting us with development of the Electronic Document Management Standards, the report should provide you with an overview of automation tools being used across DOD for Document Management. If you have any questions relating to the content of this survey please contact Jack Owens, Michael Baker, Jr., Inc. at 800-642-2537 ext. 4348 or 412-495-4348. Tri -Service related questions should be directed to Laurel T. Gorman, P.G. at 601-634-4484.

Tri-Service CADD/GIS Technology Center
Electronic Document Management System (EDMS) User Survey

Name of Point of Contact: Lawrence W. Condry **Phone:** (410) 291-4960

Title of POC: Project Manager Gas Supply **Fax:** (410) 291-4974

Internet E mail address: lawrence.w.condry@BGE.com

Installation or Office Name: Spring Gardens Plant

Office or Department Title: Gas Engineering and Construction Department

Office or Department Code:

Mailing Address:

1699 Leadenhall St., 2nd floor

Service Building – Spring Gardens

Baltimore, MD 21230

Organization Branch: (check one)

- ☐ **Air Force**
- ☐ **Army**
- ☐ **Army Corps of Engineers**
- ☐ **Marines**
- ☐ **Navy**
- ☐ **Coast Guard**
- ☑ **Other :**

Public Utility

Enclosure 1

Tri-Service CADD/GIS Technology Center

Electronic Document Management System (EDMS) User Survey

Category Number Listing-(Other categories may be added as needed)

1. *EDMS Software* COTS, (Bentley Teammate, Intergraph NFM, Intergraph AIM, TSA Advet Falcon DMS, FileNet, Other) GOTS, Other
2. *Client* CLIX, DOS/Windows 3.1x, Windows 95, Windows NT, Sun Sparc
3. *Server* UNIX, NT, Novell Netware, Sun Sparc
4. *Storage/Repository* Desktop, RAID, CD-ROM, Optical
5. *Database DBMS* SQL, Oracle
6. *Viewing/Markup/Module* Spicer Imagenation, Imageview, Other
7. *Workflow Product/Module* FileNet Visual Workflow, FileNet Ensemble, Other
8. *Network* Novell, NFS, Other
9. *OCR Engine* Caere OmniPage Pro, Other
10. *Type Files Stored* DGN, DWG, CGM, TIFF, PDF, Other native formats
11. *Associated CAD2 Product(s)* Intergraph, Cordant
12. *Associated Non-CAD2 Product(s)*
13. *Customization Tools* Visual Basic 4, PowerBuilder, Other
14. *Internet/Intranet* Microsoft Internet Explorer, Netscape Navigator, Saros Mezzanine, Other

(Example)

Category Number: 1

COTS=Commercial Off The Shelf Software GOTS=Government Off The Shelf Software

Status	Software Name	Type Software	Brief Functional Description
☒ In Use	*Intergraph AIM*	☒ COTS	*Document Management Suite*
☐ Initiative		☐ GOTS	
		☐ Custom	

Survey of EDMS Work Performed Or Initiatives Under Development

Tri-Service CADD/GIS Technology Center, Electronic Document Management System (EDMS) User Survey

Category Number: 5

Status	Software Name	Type Software	Brief Functional Description
☑ In Use		☐ COTS	
☐ Initiative		☐ GOTS	
		☐ Custom	

Category Number: 6

Status	Software Name	Type Software	Brief Functional Description
☐ In Use		☐ COTS	
☐ Initiative		☐ GOTS	
		☐ Custom	

Category Number: 7

Status	Software Name	Type Software	Brief Functional Description
☐ In Use		☐ COTS	
☐ Initiative		☐ GOTS	
		☐ Custom	

Category Number: 8

Status	Software Name	Type Software	Brief Functional Description
☐ In Use	RAID	☐ COTS	
☐ Initiative		☐ GOTS	
		☐ Custom	

Installation Name: _____ **Page** _____ **of** _____

Please duplicate before using

Survey of EDMS Work Performed Or Initiatives Under Development

Tri-Service CADD/GIS Technology Center, Electronic Document Management System (EDMS) User Survey

Category Number: 9

Status	Software Name	Type Software	Brief Functional Description
☐ In Use		☐ COTS	
☐ Initiative		☐ GOTS	
		☐ Custom	

Category Number: 10

Status	Software Name	Type Software	Brief Functional Description
☑ In Use	.TIFF	☐ COTS	
☐ Initiative		☐ GOTS	
		☐ Custom	

Category Number: _____

Status	Software Name	Type Software	Brief Functional Description
☐ In Use		☐ COTS	
☐ Initiative		☐ GOTS	
		☐ Custom	

Category Number: _____

Status	Software Name	Type Software	Brief Functional Description
☐ In Use		☐ COTS	
☐ Initiative		☐ GOTS	
		☐ Custom	

Installation Name: _____ **Page** _____ **of** _____

Please duplicate before using

Survey of EDMS Hardware/Software Currently In Use

1) Do you have an operating EDMS system in place? ☐ **Yes** ☑ **No** ☐ **Future procurement planned**
(If no current operating EDMS system please skip to question 30)

2) How many users of the system? 200 **How many concurrent users?** 20

3) How many files are currently stored? 64,558 **What is your average file size?** 10 MB

4) What is the primary function of your EDMS system? To supply the latest and most up to date version of our record drawings to the users.

5) Describe the primary hardware components of your system:
(If available please provide a diagram describing the components of your system)

Server(s) Gateway 2000

Input Device(s) Ideal Scanner

Storage Repository Gateway 2000 and HP Jukebox (20 disc – upgradeable to 40)

Primary Workstation(s) Gateway 2000

Printer(s) and/or Plotter(s) HP Design Jet 600

Other associated hardware components _____

Note: Information pertaining to software and operating system (client) data is detailed in the section entitled " **Survey of EDMS Work Performed Or Initiatives Under Development"**

6) Do you store and retrieve engineering (CADD) drawings on a regular basis? ☑ **Yes** ☐ **No**

7) If yes, in what format are the drawings ? ☐ **Native CADD** ☑ **Scanned Image** ☐ **Other (describe)** .TIFF
We store and retrieve drawings but not in a CADD format

8) Was Legacy data transferred to your EDMS system? ☑ **Yes** ☐ **No**

9) If yes, describe the means by which it was captured Some data scanned in on site – other data sent out to vendor and scanned onto optical disks.

10) Describe your data capture process for inclusion of native format files (word processing, CADD, etc.) into your EDMS system All data is scanned in to system. Nothing is entered electronically

11) Describe your digital document indexing process All documents are indexed under street name, job number, date scanned community name, electric grid and gas grid

12) Describe your digital document retrieval or query process See Above

13) Describe, if applicable, your digital workflow process _____

14) Have security, version control and redundancy issues associated with your EDMS system been adequately addressed?

☑ **Yes** ☐ **No**

15) If no, what improvements to your EDMS system would be required to meet desired security requirements? _____

16) Is an efficient archive/backup process a component of your system? ☐ **Yes** ☑ **No**

17) If no, what modifications would be required to improve this activity? _____

18) Is Internet/Intranet integration a desired or current component of your system? ☑ **Yes** ☐ **No**

19) Does your site have a training program for system users? ☑ **Yes** ☐ **No**

20) What resources are required to maintain your system on a day-to-day basis? One full time employee

21) How long did it take to install your system? Approximately 4 months

22) What problems were you setting out to resolve with the implementation of EDMS? Reduce amount of time from new jobs being plotted on drawings until received by users in Districts

23) What challenges did you encounter during the implementation process? _____

24) Was an ROI done prior to the installation of your EDMS system? ☐ **Yes** ☐ **No**

25) If yes, what were the results? (*If available attach ROI table*) _____

26) Describe the tangible and intangible benefits realized by the inception of your EDMS system. _____

27) What user acceptance issues were addressed as your system was brought on-line? _____

28) What are the "Lessons Learned" that you would credit to the implementation of your system?_____

29) Additional Comments: _____

30) Are you planning to implement an EDMS system in the future? ☐ **Yes** ☐ **No**

31) If yes, within what time frame? ☐ **0 - 12 mo** ☐ **12 - 24 mo** ☐ **24 - 36 mo** ☐ **Undetermined**

32) In what format are your documents currently maintained? ☐ **digital** ☐ **paper** ☐ **microfilm** ☐ **microfiche**

☐ **aperture card** ☐ **other (describe)** _____

33) How are your documents currently indexed? ☐ **card catalog** ☐ **digital data base** ☐ **other (describe)** _____

34) Do your stored documents include plotted CADD drawings? ☐ **Yes** ☑ **No**

35) If yes, will the CADD drawings be stored on your EDMS system? ☐ **Yes** ☐ **No**

36) How would you capture the CADD drawing for electronic storage? ☐ **scan** ☐ **native format** ☑ **other (describe)**

Software must be replaced to capture CADD

37) Describe any issues or concerns you might associate with the implementation of an EDMS system_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Installation Name: _____ Page _____ of _____

Thanks for taking your valuable time to complete this survey. A copy of the final report will be sent to you. In addition to assisting us with development of the Electronic Document Management Standards, the report should provide you with an overview of automation tools being used across DOD for Document Management. If you have any questions relating to the content of this survey please contact Jack Owens, Michael Baker, Jr., Inc. at 800-642-2537 ext. 4348 or 412-495-4348. Tri -Service related questions should be directed to Laurel T. Gorman, P.G. at 601-634-4484.

This page is intentionally left blank.

Appendix C

NAVFAC EDMS Criteria Worksheet

Naval Facilities Engineering Command

Technology Evaluation System

Criteria Definition Worksheet

ELECTRONIC DOCUMENT MANAGEMENT SYSTEM (EDMS)

Corporate Technology Requirements

Criterion #1

Name: **COTS APPLICATION FOR NT, NT SERVER**
Definition: Commercial-off-the-shelf software with out-of-the-box functionality for LAN/WAN distribution of data. Client desktop operating system is Windows NT (some legacy Windows 95); the server operating system is Windows NT Server.

Criterion #2

Name: **ORACLE RDBMS**
Definition: Uses corporate RDBMS.

Criterion #3

Name: **WEB THIN-CLIENT BASED**
Definition: Browser-client with dynamically downloaded applets, full user application functionality over the web. Works with both Netscape Navigator/Communicator and Internet Explorer.

Criterion #4

Name: **OBJECT-ORIENTED OLE (ACTIVE X) COMPLIANT**
Definition: The object oriented approach views systems as collections of "objects." Objects encapsulate data and functions. They model real-life entities and concepts in programs. Objects interact with each other through well-defined interfaces. Object-Oriented can simplify complex system structures and increase their performance, robustness and extensibility. OLE Object Linking and Embedding is a Microsoft Windows facility that allows you to use several Windows applications to produce a single document.

Criterion #5

Name: **MIGRATION PATH FROM EXISTING SYSTEMS**
Definition: Method available to convert existing EDMS systems to the selected system, e.g., Keyfile.

Criterion #6

Name: **INTEGRATABLE WITH RMS**
Definition: Specify RMS-compatible application, whether internal, add-on, or third party.

Criterion #7

Name: **SCALABLE/RELIABLE**
Definition: Software has a flexible architectural design, with the ability to expand the system as corporate usage increases. Services can be distributed on multiple

machines and the system supports multi-threading. Software has solid transaction integrity features. The system has the ability to replicate repositories between geographically separate locations for recovery purposes.

EDMS CRITERIA RECOMMENDATIONS

Capture & Storage

Criterion #8

Name: **STORED AND CUSTOMIZABLE DOCUMENT METADATA**
Definition: The system supports stored Metadata (attributes, index values, profiles/properties or characteristics of documents) are supplied with the applications. The software must be customizable so that the metadata can be changed or supplemented.

Criterion #9

Name: **SEAMLESS STORAGE FEATURES**
Definition: The system has the capability to locate engineering documents within the system, without the end user's knowledge of the physical location.

Criterion #10

Name: **MULTIPLE VERSION STORAGE FEATURES**
Definition: The application's ability to track and store multiple revisions of documents and ensure that users have the correct/current version of a single named document. The ability to track access and revision activities for each document and allow purging of obsolete documents.

Criterion #11

Name: **UTILIZES MULTIPLE STORAGE MEDIA**
Definition: Software is capable of storing documents to varied media, e.g., CD-ROM, optical disk including Computer Output to Laser Disk (COLD), magnetic tape, etc., and is capable of storing data on-line, near-line, and off-site for disaster recovery purposes.

Criterion #12

Name: **OCR SUPPORT**
Definition: Software supports or integrates with Optical Character Recognition, the process of turning an image into computer-editable text.

Criterion #13

Name: **FAX SUPPORT**
Definition: Software can receive, transmit, track and capture faxed documents to the end-user.

Criterion #14

Name: **EMAIL SUPPORT**
Definition: Software can receive, transmit, capture and track electronic mail via integration with corporate email system MS-Exchange/Outlook.

Criterion #15

Name: **ODBC COMPLIANT**

Definition: Can use Open Database Connectivity to access databases.

Criterion #16

Name: **STORE ALL BINARY FORMATS**
Definition: Software must be capable of capturing, retrieving, and storing data in all binary file formats, whether or not view is supported.

RETRIEVAL

Criterion #17

Name: **FULL-TEXT SEARCH AND RETRIEVAL**
Definition: Access documents by words or phrases or by metadata.

Criterion #18

Name: **POWERFUL DISTRIBUTED SEARCH ENGINE CAPABILITY**
Definition: Ability to query corporate documents in real time within one's own department, organization or corporate wide. Provides response to content search of multiple document servers and remote network sites and delivers unified hit-list.

Criterion #19

Name: **CUSTOMIZED SEARCH**
Definition: Provides query by example to novice end-users and advanced search features for experienced users. To include drag and drop capabilities from metadata, pick lists, etc.

Criterion #20

Name: **SAVED SEARCH CAPABILITIES**
Definition: Ability to name and save searches for repeated use.

Criterion #21

Name: **FLEXIBLE VIEWING CAPABILITIES**
Definition: Software has the capability to deliver documents to the desktop for display, review, annotation, printing, and copying multiple common electronic file formats such as .doc, .xls, .pdf, .tif, .gif, .jpg, .txt, .ppt, .dwg, .dxf, etc. Supports CCITT Group IV compression formats.

	Viewed by		
File Type	Native File Type Viewer (provided by EDMS)	Browser Plug-In	Helper Application
.doc			
.xls			
.pdf			
etc.			

WORKFLOW

Criterion #22

Name: **SUPPORT OF AD HOC AND PRODUCTION WORKFLOW**
Definition: Able to accommodate real-time changes including restarting or revising routing from any step at any time. (**User created templates, ad-hoc and production workflow).

Criterion #23

Name: **GRAPHICAL DOCUMENT ROUTING AND TRACKING**
Definition: Visual representation of tasks defined with the status and location of routing and tracking. A variety of data types can be supported. Work routing defines the order in which the items flow. Work may be routed graphically without third party programming. Once implemented, the status of all transactions can be checked.

Criterion #24

Name: **EMAIL NOTIFICATION**
Definition: Software leverages corporate email system MS-Outlook/Exchange, for event notification, but does not require an email system for document delivery. Documents can be distributed in sequence, parallel or broadcast modes with automated inactivity notification.

SECURITY/TRANSMISSION

Criterion #25

Name: **REVISION CONTROL**
Definition: Ability to allow or restrict multiple levels of access to an individual or group. Software locks 'checked out' files from access, allows offline edit, and prompts users for checkin. All revisions to a document should be distinguished from one another.

Criterion #26

Name: **MULTIPLE DOCUMENT SECURITY LEVELS**
Definition: Ability to assign levels of security to a project, file folder, document or versions.

Criterion #27

Name: **SECURITY 'ROLES' AND INDIVIDUAL/GROUP PRIVILEGES**
Definition: Ability to assign levels of security from a Department down to an individual. Software leverages operating system and database security, using standard directories. Software prevents access to documents from outside the EDMS.

ADDITIONAL

Criterion #28

Name: **SOFTWARE APPLICATION COST**
Definition: Require pricing for 1500, 7500 and 15000 seats of both web thin client and thick client. Details on pricing structure are required (licensing per seat, per named user or concurrent).

Criterion #29

Name: **FULLY-REMOTE ADMINISTRATION**
Definition: Allow one point or distributed administration of system, end-users and software upgrades (remote console, web interface, etc.) through an intuitive interface. Utilities are available to perform reporting on audit trail data.

Criterion #30

Name: **API (APPLICATION PROGRAMMING INTERFACE) FOR CUSTOM APPLICATIONS**
Definition: Software provides methods to customize and present different user interfaces. API's are available and a forms designer is provided or industry standard tools are supported to work with the product such as Visual Basic, C++, Delphi, etc.

Criterion #31

Name: **MINIMAL TRAINING REQUIREMENTS**
Definition: Less than one day of training for end-user and less than one week of training for the administrator.

Criterion #32

Name: **ANNOTATION OF DATA**
Definition: Layers of annotations including redlining, sticky notes, highlighting, redacting, typed notes and freehand line drawing with the ability to track the annotations in an audit trail and to provide security. The annotations are separate from and do not directly modify the content of the original document.

Criterion #33

Name: **PRODUCT MAINTENANCE AND SUPPORT**
Definition: Notification or access to patches and maintenance releases. Level of support (i.e., 24/7 unlimited telephone assistance).

RECORDS MANAGEMENT SYSTEMS (RMS) CRITERIA
INTEGRATABLE WITH RECOMMENDED EDMS

DOCUMENT FILING

Criterion #34

Name: **NON-ELECTRONIC RECORDS**
Definition: Ability to manage all non-electronic records (i.e., paper, audio, video, microfiche, maps, drawings, 105mm, 35mm and photos, etc.) without the requirement of converting the records into electronic format.

Criterion #35

Name: **ELECTRONIC MAIL RECORDS SUPPORT**
Definition: Ability to capture and manage selected electronic mail messages and to catalog essential and required information (i.e., message header, text, attachments, etc.) and to secure the documents as official records.

Criterion #36

Name: **DOCUMENT FILING SUPPORT**
Definition: Ability to capture essential and required records management information from a document determined ("declared") to be an official record from the EDMS without duplicating the document or the document's metadata (properties/profile.)

END-USER SERVICES

Criterion #37

Name: **CLASSIFICATION**
Definition: Ability to classify "declared" documents from the EDMS into the appropriate Standard Subject Identification Code (SSIC). Ability to classify documents quickly, easily and accurately by building pick lists or automatically classifying documents by individuals, business lines, or projects, etc. Software includes identifying and tracking vital records.

Criterion #38

Name: **RESERVATIONS**
Definition: Ability for the end-user to reserve and checkout non-electronic records tracked and managed by the records management system. Notifies records manager of request and tracks physical location of those records (i.e., who checked-out, expected due date, date of return.) Also allows records manager to produce reports.

Criterion #39

Name: **REPORT WRITER**
Definition: Ability to query and produce records management reports related to file plans and "records" inventories, scheduling, transfer, and final disposition.

Criterion #40

Name: **FILE PLAN**
Definition: Identifies and describes business line or organization's records' life cycle structure by subject grouping. The basis for records retention and final disposition.

Criterion #41

Name: **RECORDS SCHEDULING**
Definition: Ability to inventory and cut-off records at a designated time (date) or event, allowing human intervention for review or automatic records transfer. Also includes transfer of non-electronic records to the Federal Records Centers or transfer control of records to the National Archives and Records Administration.

Criterion #42

Name: **FILE PLAN RE-ORGANIZATION**
Definition: Ability to change single subject groups, business lines or global changes to accommodate updates to regulations or changes to business operations or corporate restructuring/reorgranization.

Criterion #43

Name: **DoD 5015.2-STD Certified**
Definition: Meeting DoD required certification and compliance with the DoD 5015.2-STD, Design Criteria Standard for Electronic Records Management Software Applications.

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 074-0188

1. AGENCY USE ONLY (Leave blank)	2. REPORT DATE	3. REPORT TYPE AND DATE COVERED
	December 1998	Final report

4. TITLE AND SUBTITLE

Tri-Service Guidelines for Electronic Document Management Systems (EDMS) for Facility Management

5. FUNDING NUMBERS

6. AUTHOR(S)

Robert J.Hanson, John A. Owens, James R. Daley, Andrew J. Synnott, Laurel T. Gorman

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)

8. PERFORMING ORGANIZATION REPORT NUMBER

Technical Report CADD-98-XX

9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)

10. SPONSORING/MONITORING AGENCY REPORT NUMBER

11. SUPPLEMENTARY NOTES

Report is available electronically at http://tsc.wes.army.mil

12a. DISTRIBUTION/AVAILABILITY STATEMENT

Approved for public release; distribution is unlimited

12b. DISTRIBUTION CODE

13. ABSTRACT (*Maximum 200 Words)*

This guideline is written for DoD organizations wishing to manage engineering and facility management documents more effectively. It presents general guidelines applicable to any Electronic Document Management System (EDMS), with particular emphasis on managing large-scale engineering drawings, whether paper-based or CADD-generated. Topics addressed are EDMS technologies for standard business and engineering documents, a description of document management processes and associated hardware and software components, automated workflow, EDMS user survey results, additional information on DoD and federal agency use of EDMS, lessons learned by DoD/federal users, implementation issues, use of the Internet and Intranets for document management, conclusions, and recommendations. Recommendations for implementing an EDMS relate to the need to understand existing systems and workflows, establish a clear purpose and objectives for the EDMS, anticipate cultural acceptance issues, phase implementation using a pilot project approach, ensure existing manual workflows can be duplicated, provide training, and choose an EDMS vendor wisely.

14. SUBJECT TERMS	15. NUMBER OF PAGES
Electronic Document Management Systems, EDMS, EDM, PDM, Automated workflow, File sharing, Collaborative engineering, Imaging, Scanning, Electronic repositories	16. PRICE CODE

17. SECURITY CLASSIFICATION OF REPORT	18. SECURITY CLASSIFICATION OF THIS PAGE	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT
UNCLASSIFIED	**UNCLASSIFIED**		